
Planning and designating the Modular Distribution Frame (MDF)

WARNING**Electrical shock hazard**

Tip, ring, A, B, E, M, ESC, and ESCG connections may be considered to be Telecommunications Network Voltages (TNV).

All Meridian 1 terminations are cross-connected on frame-mounted or wall-mounted BIX Modules and connecting blocks. The layout of the blocks can vary to meet the requirements of the site. See the following documents for a complete description of the BIX cross-connect system:

- *BIX In-Building Cross-Connect System Material Description* (631-4511-100)
- *BIX In-Building Cross-Connect System Planning* (631-4511-150)
- *BIX In-Building Cross-Connect System Material Installation and Servicing* (631-4511-200)
- *Customer premises distribution frame description and installation* (631-4511-201)
- *Protection entrance terminal description and installation* (631-4511-202)

[Table 3](#) lists part numbers for BIX designation labels.

Table 3
Order codes for BIX designation strips

Label	Part number
NT8D11 CE/PE Module (basic label)	P0711373
NT8D37 IPE Module (basic label)	P0711372
NT8D37 IPE Module (fully expanded label)	P0711371
NT8D14 Universal Trunk Card (RAN)	P0711376
NT8D14 Universal Trunk Card (paging)	P0711378
NT8D14 Universal Trunk Card (CO/FX/WATS and all other modes)	P0711380
NT8D15 E&M Trunk Card (2-wire, type 1)	P0711379
NT8D15 E&M Trunk Card (2-wire, paging)	P0711377
NT8D15 E&M Trunk Card (4-wire, type 1)	P0711374
NT8D15 E&M Trunk Card (4-wire, type 2)	P0711375
A0355200 PFTU: Dees Model 154A	P0711382
Gordon-Kapes Model BP-2-48	P0711383

BIX installation and designation

- 1 Install BIX cross-connect blocks according to the installation procedure described in *BIX Installation and Servicing* (631-4511-200).
 - The BIX Module includes one QMBIX10A mount, ten QCBIX1A connectors, and five QSBIX20A designation strips. A QMBIX12E mount, which holds 12 QCBIX1A connectors, is also available.
 - [Figure 32](#) shows a wall-mounted BIX Module.
 - [Figure 33](#) shows the recommended BIX Module layout for NT8D11 CE/PE, NT8D13 PE, and NT8D37 IPE Modules.
- 2 Attach the adhesive designation labels for lines to the BIX designation strips. [Figure 34](#) shows samples of the basic BIX designation labels for NT8D11 CE/PE and NT8D37 IPE Modules.
- 3 Attach the labels for trunks on top of the basic labels according to the assignments shown on the work order. The transparent window on the trunk labels allows the card number on the basic labels to be seen.
 - [Figure 35](#) shows samples of the overlay BIX designation labels for all NT8D14 Universal Trunk modes.
 - [Figure 36](#) shows samples of the overlay BIX designation labels for all NT8D15 E&M Trunk modes.
- 4 Attach the labels for the P1, P2 (from the PFTU), and P3 (alarm) cable connections. [Figure 37](#) shows samples of the BIX designation labels for the PFTU.
- 5 Attach the labels for incoming trunks, telephones, and riser cables according to the work order.

Figure 32
BIX Module

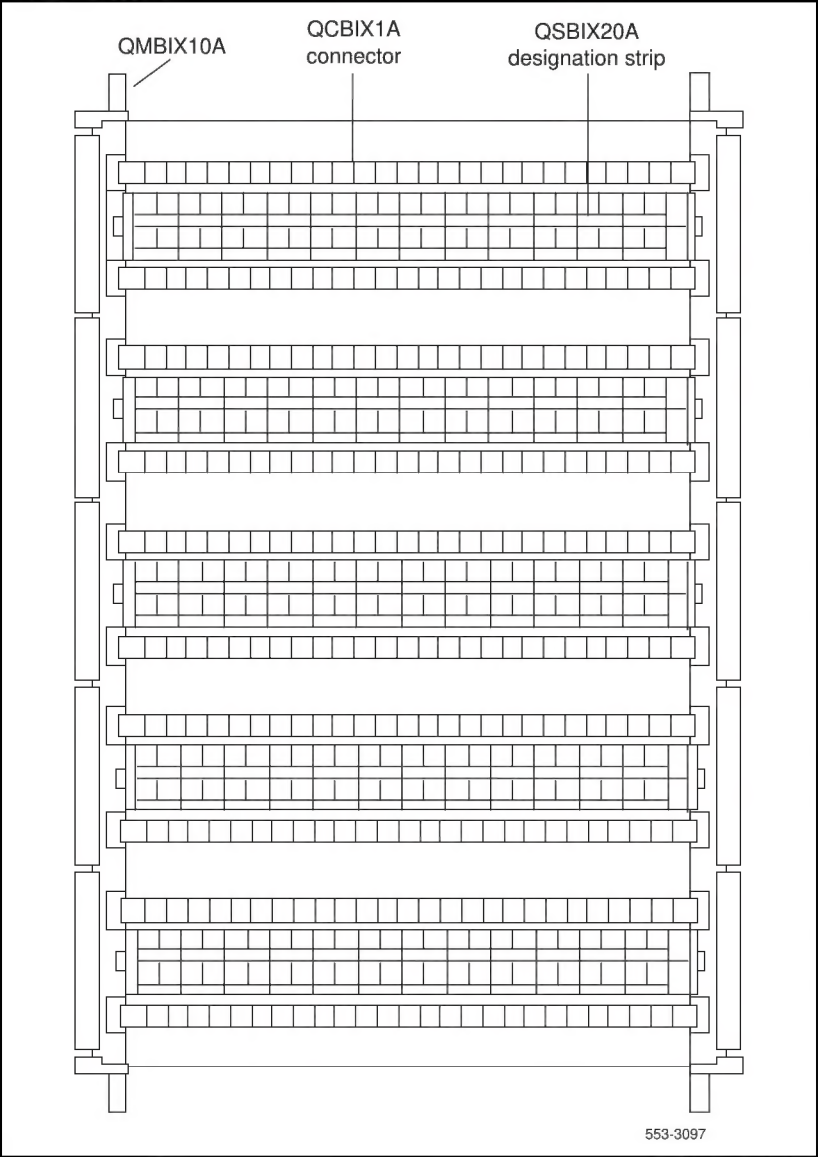


Figure 33
Recommended BIX layout for NT8D11 CE/PE, NT8D13 PE, and NT8D37 IPE Modules

Cable terminations for NT8D11 CE/PE Module		Cable terminations for one NT8D37 IPE Module		Cable terminations for multiple NT8D13 PE Modules	
PFTU Cable 1		From I/O panel	Cable A	From I/O panels	Cable A
PFTU Cable 2			Cable B		Cable B
			Cable C		Cable C
Monitor/Alarm connections			Cable D (Note)		Cable D
Monitor/Alarm connections			Cable E		Cable E
			Cable F		Cable F
			Cable G		Cable G
			Cable H (Note)		Cable A
			Cable K		Cable B
			Cable L		Cable C
From I/O panel	Cable A		Cable M		Cable D
	Cable B		Cable N (Note)		Cable E
	Cable C		Cable R		Cable F
	Cable D (Note)		Cable S		Cable G
	Cable E		Cable T		Cable A
	Cable F		Cable U (Note)		Cable B
	Cable G (Note)		Spare		Cable C
	Cable H		Spare		Cable D
	Cable K		Spare		Cable E
	Cable L (Note)		Spare		Cable F

Note: In NT8D11AC or NT8D11DC CE/PE and NT8D37AC or NT8D37DC IPE Modules, these slots *are not* used. They *are* used in NT8D11BC or NT8D11EC CE/PE and NT8D37BA or NT8D37EC IPE Modules.

553-3099

Figure 36
Sample overlay BIX labels—NT8D15 E&M Trunk Card

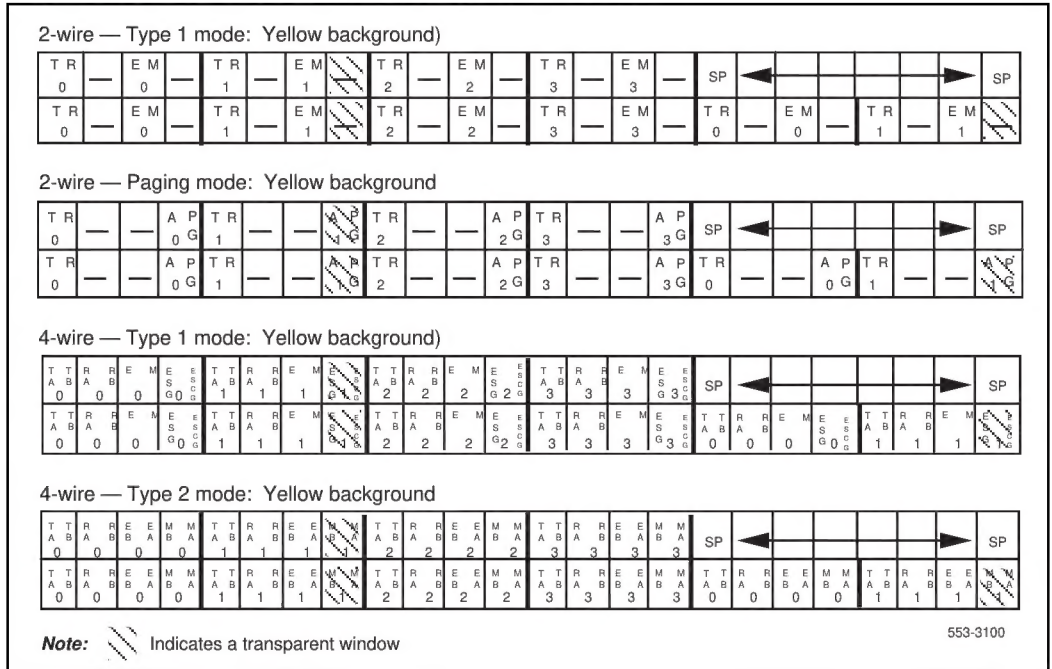
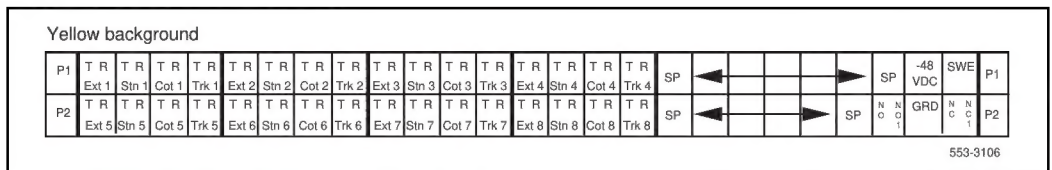


Figure 37
Sample BIX labels—PFTU



Backplane cable expansion

In the backplane configuration in NT8D11AC or NT8D11DC CE/PE and NT8D37AC or NT8D37DC IPE Modules, only some of the slots on the backplane are fully cabled to accommodate 24 tip and ring pairs (three cable connectors). Most of the backplane slots accommodate 16 pairs (two cable connectors). By adding and reconfiguring cable ends in the backplane slots, 24 pairs can be connected to each backplane slot.

With the 7-cable backplane configuration in the NT8D11AC and NT8D11DC CE/PE Modules, cable designations D, G, and L on the I/O panel are reserved for expansion (as shown in [Figure 33](#)). Those cable designations are utilized in the 10-cable expanded configuration in NT8D11BC and NT8D11EC Modules.

With the 12-cable backplane configuration in the NT8D37AC and NT8D37DC IPE Modules, cable designations D, H, N, and U on the I/O panel are reserved for expansion (as shown in [Figure 33](#)). Those cable designations are utilized in the 16-cable expanded configuration in NT8D37BA and NT8D37EC Modules.

When backplane slots are reconfigured for expanded cabling, the labeling for NT8D11 CE/PE and NT8D37 IPE Modules must be changed at the MDF to reflect the change in the backplane slots. [Figure 34](#) gives a sample of the basic BIX labels for NT8D11 CE/PE and NT8D37 IPE Modules with the standard backplane cabling configuration and with the expanded backplane cabling configuration.

Krone cross connect system (UK)

In the Krone cross connect system, one terminating strip holds 10 pairs of cable. When cross connecting a 25-pair cable on this system, 8 of the 10 terminating points are used on each strip. One 25-pair cable, therefore, occupies three terminating strips:

8 pairs per strip X 3 strips = 24 pairs

Card allocations

[Figures 38](#) and [39](#) provide IPE and CE/PE module card allocations for the Krone cross connect system.

Figure 38
IPE module card allocation—Krone cross connect system

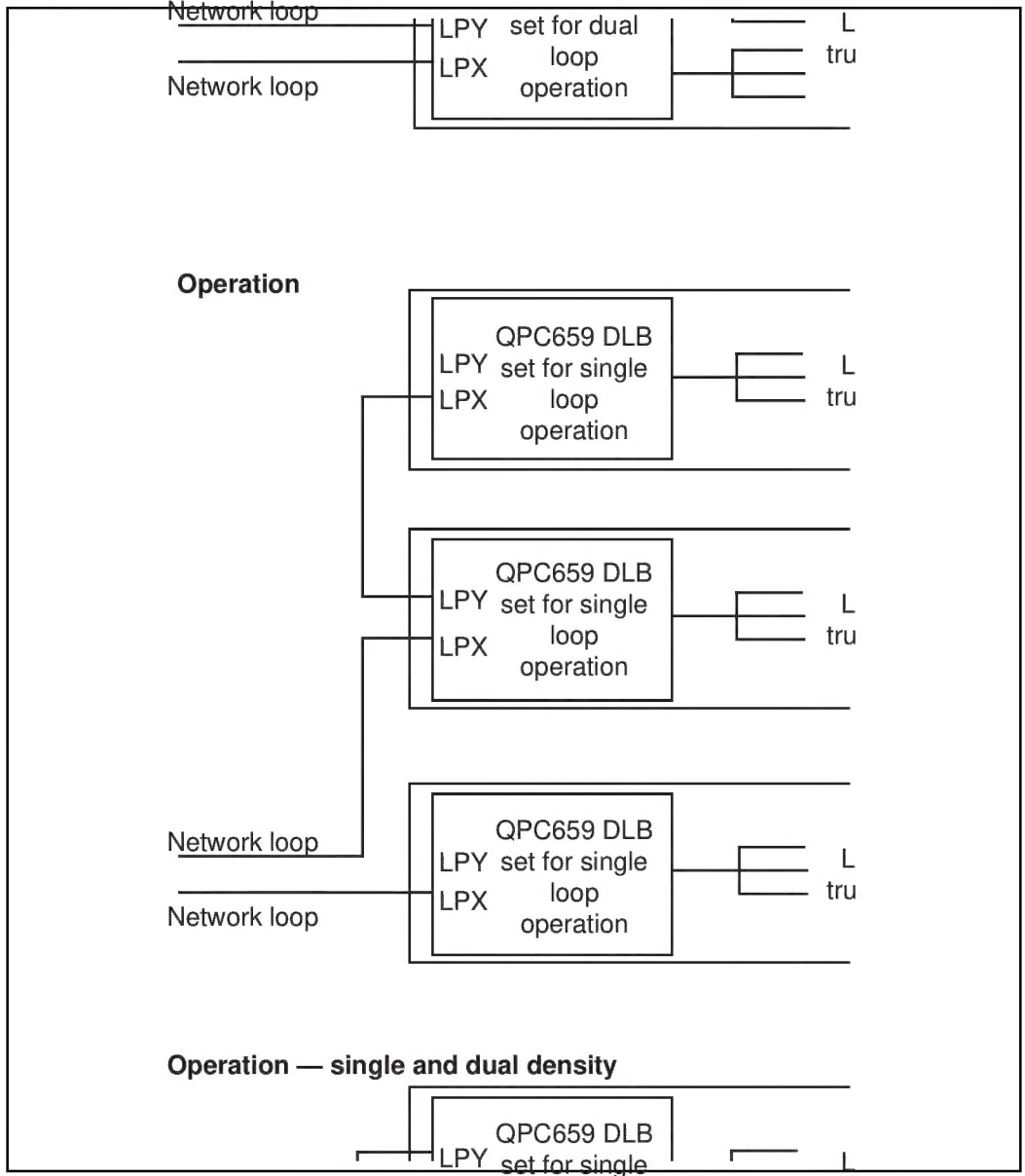
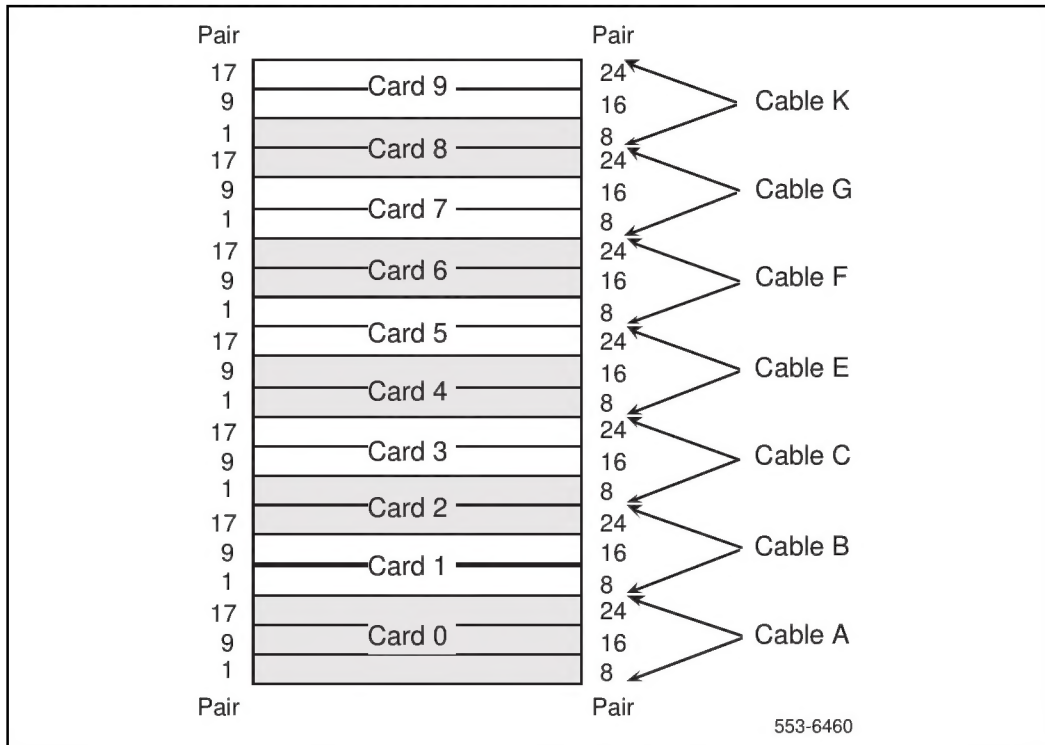


Figure 39
CE/PE module card allocation—Krone cross connect system



Labels

Terminating strips on the Krone cross connect must be labeled if they contain wiring. The labels that attach to the terminating strips have two sides: the front side shows the name of the card and the card number, the reverse side (flip-up side) shows pair designations for that card.

There are two types of mandatory labels: those with safety warnings and those without. Mandatory labels with safety warnings are required for the following cards:

- NT5K02 Analogue line card
- NT5K19 Analogue tie trunk card
- QUA6 Power Fail Transfer Unit (PFTU)

Labels are mandatory for the following cards but they do not need safety warnings:

- NT5K18 Exchange line card
- NT5K17 Direct Dial Inwards (DDI) card

[Figures 40](#) through [46](#) show labels for the Krone cross connect system.

Figure 40
Label for Analogue line card

SAFETY WARNING SEE INSTRUCTIONS FOR USE : ANALOGUE TELEPHONES										LOOP..... SHELF..... CARD.....	
0	1	2	3	4	5	6	7	DIR. NO.'S			
T R	T R	T R	T R	T R	T R	T R	T R	T R	T R	T R	
SAFETY WARNING SEE INSTRUCTIONS FOR USE : ANALOGUE TELEPHONES										LOOP..... SHELF..... CARD.....	
8	9	10	11	12	13	14	15	DIR. NO.'S			
T R	T R	T R	T R	T R	T R	T R	T R	T R	T R	T R	
SAFETY WARNING SEE INSTRUCTIONS FOR USE : ANALOGUE TELEPHONES										LOOP..... SHELF..... CARD.....	
0	1	2	3	4	5	6	7	DIR. NO.'S			
T R	T R	T R	T R	T R	T R	T R	T R	T R	T R	T R	

553-6461

Figure 42
Label for Data Access line card (NT7D16)

SAFETY WARNING		LOOP.....
SEE INSTRUCTIONS FOR USE : DATA EQUIPMENT		SHELF.....
CARD.....		
Unit: Dir. Number:	Unit: Dir. Number:	
CT DS G D DT T R S R N C R R D D S R D D I	C DS G D DT T R T R N C R R D D S R D D I	
SAFETY WARNING		LOOP.....
SEE INSTRUCTIONS FOR USE : DATA EQUIPMENT		SHELF.....
CARD.....		
Unit: Dir. Number:	Unit: Dir. Number:	
CT D G D DT T R S S N C R R D D R D D I	CT D G D DT T R S S N C R R D D R D D I	
SAFETY WARNING		LOOP.....
SEE INSTRUCTIONS FOR USE : DATA EQUIPMENT		SHELF.....
CARD.....		
Unit: Dir. Number:	Unit: Dir. Number:	
C DS G D D T R T R N C T R D D S D D R I	C D G D D T R T S N C T R D D S R D D R I	

553-6463

Figure 43
Label for Power Fail Transfer Unit

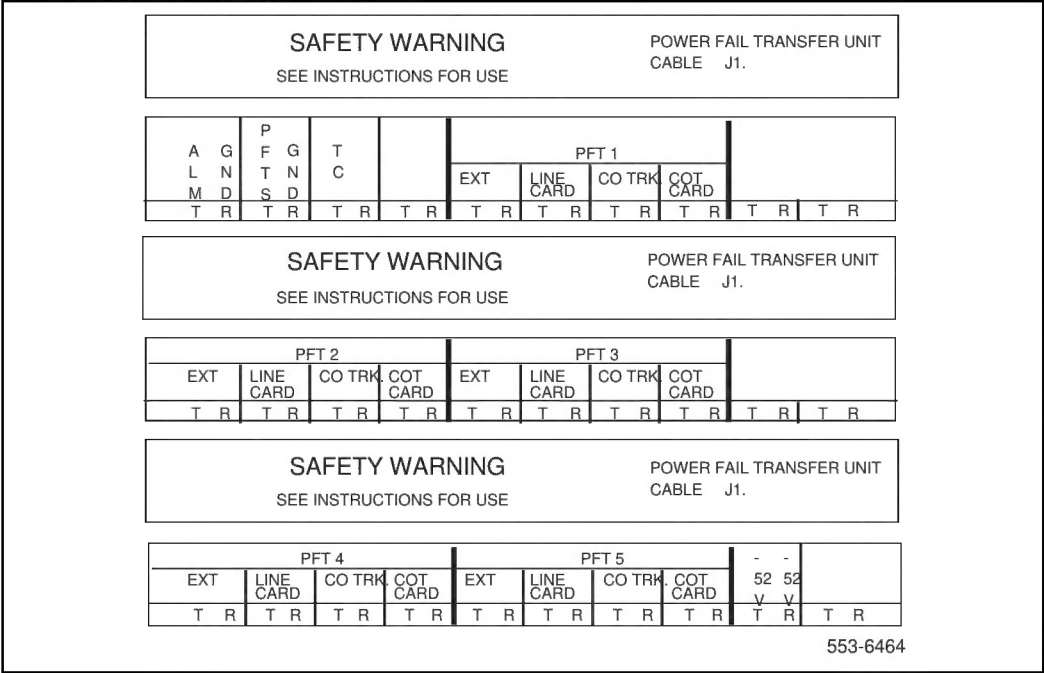


Figure 44
Label for Digital line card (NT8D02)

SAFETY WARNING										LOOP..... SHELF..... CARD.....	
SEE INSTRUCTIONS FOR USE : DIGITAL TELEPHONES											

0	1	2	3	4	5	6	7	DIR. NO.'S	
T R	T R	T R	T R	T R	T R	T R	T R	T R	T R

SAFETY WARNING										LOOP..... SHELF..... CARD.....	
SEE INSTRUCTIONS FOR USE : DIGITAL TELEPHONES											

8	9	10	11	12	13	14	15	DIR. NO.'S	
T R	T R	T R	T R	T R	T R	T R	T R	T R	T R

553-6465

Figure 45
Label for Exchange line trunk card (NT5K18)

EXCHANGE LINES										LOOP..... SHELF..... CARD.....	
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0	1	2	3	EXCHANGE NO.'S	
T R	T R	T R	T R		

EXCHANGE LINES										LOOP..... SHELF..... CARD.....	
----------------	--	--	--	--	--	--	--	--	--	--------------------------------------	--

4	5	6	7	EXCHANGE NO.'S	
T R	T R	T R	T R		

EXCHANGE LINES										LOOP..... SHELF..... CARD.....	
----------------	--	--	--	--	--	--	--	--	--	--------------------------------------	--

0	1	2	3	EXCHANGE NO.'S	
T R	T R	T R	T R		

553-6466

Figure 46
Label for Direct Dial Inward trunk card (NT5K17)

DIRECT DIAL INWARDS

LOOP.....
SHELF.....
CARD.....

				EXCHANGE LINES
0	1	2	3	
T R	T R	T R	T R	

DIRECT DIAL INWARDS

LOOP.....
SHELF.....
CARD.....

				EXCHANGE LINES
4	5	6	7	
T R	T R	T R	T R	

DIRECT DIAL INWARDS

LOOP.....
SHELF.....
CARD.....

				EXCHANGE LINES
0	1	2	3	
T R	T R	T R	T R	

553-6467